StArt – State of the Art through Systematic Review

Title:	The PR-10 protein in resistance to biotic stresses: progress in the elucidation of functions, regulation and modes of action.
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Description:	To carry out this systematic review, articles on the roles of protein related to the pathogenesis of family 10 with a focus on biotic stress were selected.
Objective:	- Identify whether there are differences in the response of this protein in plant varieties resistant and susceptible to biotic stress; - Identify functions and mechanisms of action of PR-10 that are related to its defense role against biotic stresses; - Verify whether the applied methodologies have allowed elucidating the role of PR-10 proteins in biological processes.
Main questions:	1- What were the plant species in which PR-10 was characterized? 2- What stressor biotic agents are portrayed in studies with PR-10? 3- Are the methodologies in studies with PR-10 effective to elucidate the mechanisms of action against biotic stresses? 4- Is there differential PR-10 expression in varieties susceptible or resistant to biotic stresses? 5- What are the functions of PR-10 in the defense against biotic stresses? 6- What are the mechanisms of action performed by the PR-10?
Key words: Stress; Mechanism; defense; Systematic review.	
Search source selection criteria: Scientific articles only.	
Language of studies: Only in English.	
Research method: Articles found in widely available scientific databases.	
Search database: Scopus; PubMed; Web Of Science.	
Inclusion criteria: Articles in English; Primary articles; Studies with biotic and abiotic stress together; Studies with PR-10 and biotic stress; Articles with the action of PR-10 in contact with a biotic stressor agent; Articles that are aligned with the objective of the systematic review.	

Exclusion Criteria: Articles that are not aligned with the objective of the systematic review; Studies with abiotic stress only; Review articles; Manuals; Technical reports; book chapters; Theses and dissertations; Abstracts; Articles published in event annals.
Definition of types of studies: Based on inclusion and exclusion criteria.
Initial selection of studies: Articles that contain in the title, abstract or keywords, the terms "PR10" or "PR" and "Biotic stress" or "Defense" or "Resistance".
Evaluation of the quality of studies: Articles that met one of the inclusion criteria and none of the exclusion criteria.
Data Extraction Strategy: Abstract (objective + conclusion); Key words; Species studied; Study countries; Stressor agent; Methodology used; Resistant variety; Susceptible varieties; Level of transcripts; Times evaluated in the analysis of transcripts; Protein accumulation; Times evaluated in protein analyses; Molecules that regulate PR-10 expression; Function performed; Mechanism of action.
Data summary: Graphs, tables and/or figures.